

Clean Version of the Entire Set of Pending Claims

1 1. In a network architecture comprising a telephone switch, an access
2 server coupled to a data network and the telephone switch via a
3 telecommunications medium to transmit user information between the
4 telephone switch and the data network, and a gateway coupled to the
5 access server and the telephone switch via an out-of-band
6 communications medium to transmit signaling information between the
7 telephone switch and the access server, a method, comprising:
8 a) sending a status message from the access server to the
9 gateway; and
10 b) acknowledging to the access server that the status message was
11 received.

1 2. The method of claim 1, wherein sending a status message from the
2 access server to the gateway comprises sending a status message from
3 the access server to the gateway that indicates the access server is
4 operational.

1 3. The method of claim 1, wherein sending a status message from the
2 access server to the gateway comprises sending a status message from
3 the access server to the gateway that specifies the capabilities of the
4 access server.

1 4. The method of claim 1, wherein acknowledging to the access server
2 that the status message was received comprises sending a status

3 acknowledgement message from the gateway to the access server that
4 indicates the status message was received.

1 5. The method of claim 4, wherein sending a status acknowledgement
2 message from the gateway to the access server that indicates the status
3 message was received comprises sending a status acknowledgement
4 message from the gateway to the access server that indicates the status
5 message was received and that the gateway allows the access server to
6 receive calls.

1 6. The method of claim 4, wherein sending a status acknowledgement
2 message from the gateway to the access server indicates the status
3 message was received comprises sending a status acknowledgment
4 message from the gateway to the access server that indicates the status
5 message was received and that the gateway allows the access server to
6 generate calls.

1 7. The method of claim 1, further comprising sending an interface
2 status message from the access server to the gateway to register at least
3 one interface on the access server that is available to receive user
4 information from the telephone switch.

1 8. The method of claim 7, further comprising sending an interface
2 status acknowledgement from the gateway to the access server in
3 response to receiving an interface status message.

1 9. The method of claim 7, wherein sending an interface status
2 message from the access server to the gateway to register at least one
3 interface on the access server that is available to receive user information
4 from the telephone switch comprises sending an interface status
5 message from the access server to the gateway to register at least one
6 interface on the access server that is available to receive user information
7 from the telephone switch and to provide status on at least one channel
8 on the interface.

1 10. The method of claim 9, further comprising sending a service
2 message from the access server to the gateway upon a change of state in
3 one of the interfaces and channels.

1 11. The method of claim 10, further comprising sending a service
2 message from the gateway to the access server to request a change in the
3 status of one or the at least one interfaces and channels on the access
4 server.

1 12. In a network architecture comprising a telephone switch, an access
2 server coupled to data network and the telephone switch via a
3 telecommunications medium to transmit user information between the
4 telephone switch and the data network, and a gateway coupled to the
5 access server and the telephone switch via an out-of-band

6 communications medium to transmit signaling information between the
7 telephone switch and the access server, a method, comprising:
8 a) sending a continuity check message from the gateway to the
9 access server; and
10 b) sending a continuity check result message from the access
11 server to the gateway.

1 13. The method of claim 12, further comprising sending a continuity
2 check result acknowledgment message from the gateway to the access
3 server in response to sending a continuity check result message from the
4 access server to the gateway.

1 14. In a network architecture comprising a telephone switch, an access
2 server coupled to a data network and the telephone switch via a
3 telecommunications medium to transmit user information between the
4 telephone switch and the data network, and a gateway coupled to the
5 access server and the telephone switch via an out-of-band
6 communications medium to transmit signaling information between the
7 telephone switch and the access server, a apparatus, comprising:
8 means for sending a status message from the access server to the
9 gateway; and
10 means acknowledging to the access server that the status message
11 was received.

1 15. The apparatus of claim 14, wherein the means for sending a status
2 message from the access server to the gateway comprises means for
3 sending a status message from the access server to the gateway that
4 indicates the access server is operational.

1 16. The apparatus of claim 14, wherein the means for sending a status
2 message from the access server to the gateway comprises means for
3 sending a status message from the access server to the gateway that
4 specifies the capabilities of the access server.

1 17. The apparatus of claim 14, wherein the means for acknowledging
2 to the access server that the status message was received comprises
3 means for sending a status acknowledgement message from the gateway
4 to the access server that indicates the status message was received.

1 18. The apparatus of claim 17, wherein the means for sending a status
2 acknowledgement message from the gateway to the access server that
3 indicates the status message was received comprises means for sending
4 a status acknowledgement message was received and that the gateway
5 allows the access server to receive calls.

1 19. The apparatus of claim 17, wherein the means for sending a status
2 acknowledgement message from the gateway to the access server that
3 indicates the status message was received comprises means for sending

4 a status acknowledgement message from the gateway to the access
5 server that indicates the status message was received and that the
6 gateway allows the access server to generate calls.

1 20. In a network architecture comprising a telephone switch, an access
2 server coupled to a data network and the telephone switch via a
3 telecommunications medium to transfer user information between the
4 telephone switch and the data network, and a gateway coupled to the
5 access server and the telephone switch via an out-of-band
6 communications medium to transmit signaling information between the
7 telephone switch and the access server, an article of manufacture
8 comprising:

9 a computer usable medium having computer readable program
10 code means embodied therein comprising:

11 computer readable program means for sending a status message
12 from the access server to the gateway; and

13 computer readable program means acknowledging to the access
14 server that the status message was received.